## ELGENCO

## NOISE GENERATORS

# **GENERAL PURPOSE SOLID STATE**



602A

\$290

FREQ. RANGES: 20 cps to 20 kc, 20 cps to 500 kc, 20 cps to 5 mc. OUTPUT SPECTRUM: 20 cps to 20 kc — ±1 db, 20 cps to 500 kc — ±3 db, 500 kc to 5 mc — ±8 db.

OUTPUT LEVEL: (open circuit), 20 kc range — 3 volts, 500 kc range — 2 volts, 5 mc range — 1 volt.

OUTPUT IMPEDANCE: 900 ohms ± 10%

MAXIMUM LOAD: (on direct output) no limit

OUTPUT STEP ATTENUATOR: X1.0, X0.1, X.01, X.001, and X.0001; calibrated to work into open circuit.

Accuracy: ± 3% to 100kc, ± 10% to 5 mc

Output Impedance: 200 ohms ± 1%

SPECTRAL DENSITY: Approximate spectral density (mv/Ncps) for 1 volt rms output. 20 kc band — 5, 500 kc band — 1.2, 5 mc band — 0.4.

AMPLITUDE PROBABILITY DISTRIBUTION: Symmetrical non-clipped

band — 0.4.

AMPLITUDE PROBABILITY DISTRIBUTION: Symmetrical non-clipped Gaussian waveform all ranges.

OUTPUT METER: 0-5 volts rms.

OPERATING TEMP:: 0 to 50° C.

POWER: 115/230 volts ± 10/20 volts, 50 to 1,000 cycles ac.

PANEL COLOR: Clear anodized brushed aluminum.

DIMENSIONS: 51/4" high x 85/4" wide x 11" deep.

SHIPPING WEIGHT: Approx. 10 lbs.



603A

\$495

FREQ. RANGES: 10 cps to 20 kc, 10 cps to 500 kc, 10 cps to 5 mc. DUTPUT SPECTRUM: 20 cps to 20 kc, 20 cps to 500 kc, 500 kc to 5 mc, 10 cps to 500 kc — ±1 db, 500 kc to 5 mc — ±3.5 db. DUTPUT LEVEL: (open circuit) 3 volts rms all ranges. DUTPUT IMPEDANCE: 200 ohms ± 10% MAX. LOAD: (on direct output) 700 ohms DUTPUT STEP ATTENUATOR: X1.0, X0.1, X.01, X.001, and X.0001; calibrated to work into open circuit. Accuracy: ± 3% to 500 kc, ± 5% to 5 mc. Output Impedance: 200 ohms ± 1%. SPECTRAL DENSITY: Approximate spectral density (mv/cps) for 1 volt rms output. 20 kc band — 5, 500 kc band — 1.2, 5 mc band — 0.4.

AMPLITITIPE PROBABILITY DISTRIBUTION: Symmetrical non-clipped

AMPLITUDE PROBABILITY DISTRIBUTION: Symmetrical non-clipped

AMPLITUDE PROBABILITY DISTRIBUTION: Symmetrical non-cill Gaussian waveform all ranges.

OUTPUT METER: 0-5 volts rms.

OPERATING TEMP.: 0 to 50°C.

POWER: 115/230 volts ± 10/20 volts, 50 to 1,000 cycles ac.

PANEL COLOR: Clear anodized brushed aluminum.

DIMENSIONS: 5¼" high x 8¾" wide x 11" deep.

SHIPPING WEIGHT: Approx. 10 lbs.



610A

\$1175

FREQ. RANGES: 10 cps to 2 kc. 10 cps to 5 kc, 10 cps to 20 kc, 10 cps to 50 kc, 10 cps to 20 kc, 10 cps to 50 kc, 10 cps to 500 kc, 10 cps to 2 mc, and 10 cps to 5 mc.

OUTPUT SPECTRUM: Uniform ± 0.5 db from 10 cps to 500 kc and ± 2.0 db from 500 kc to 5 mc.

OUTPUT LEVEL: 0 to 1 volt rms, adjustable by front panel amplitude control. A dynamic range of 5 to 1 peak to rms value is provided.

OUTPUT STEP ATTENUATOR: X1.0, X0.1, X.01, X.001, X.0001. Accuracy ± .025 db/step to 500 kc; ± 0.063 db/step to 5 mc.

SPECTRAL DENSITY: Approx. for 1 volt rms output.

LUINAL	DENGILL Applox.	101 1 ,101	imo output.
Band	mv//cps	Band	mv/vcps
2 kc	17.5	200 kc	1.75
5 kc	11.0	500 kc	1.10
20 kc	5.5	2 mc	0.55
50 kc	3.5	5 mc	0.30

AMPLITUDE PROBABILITY DISTRIBUTION: Symmetrical Gaussian all

ranges.

OUTPUT METER: 0 to 1 volt rms. Accuracy ± 2% of full scale to 2 mc; ± 5% to 5 mc.

MAXIMUM LOAD: 500 ohms on direct output.

OUTPUT IMPEDANCE: 50 ohms direct output.

POWER REQUIREMENTS: 115/230 volts ± 10/20 volts, 50 to 1,000

PANEL COLOR: Clear anodized brushed aluminum. DIMENSIONS: 51/4" high x 85%" wide x 11" deep SHIPPING WEIGHT: Approximately 11 lbs.



# **LOW FREQUENCY TUBE TYPE**

**ELGENCO NOISE GENERATORS** 



AMPLITUDE PROBABILITY DISTRIBUTION: Gaussian  $\pm~1\%$ . OUTPUT SPECTRUM: Uniform  $\pm$  0.1 db from 0 to 35 cps. MAX. OUTPUT: 12 volts rms into a 1 megohm input resistance.
Dynamic range of 5 to 1 peak-to-rms is provided.
MAX. SPECTRAL DENSITY: Approx. 2.5 volts²/cps. D.C. UNBALANCE: Less than 50 mv. POWER: 115 v  $\pm$  10 v, 60 cps ac. MOUNTING: Standard relay rack panel 7" high x 19" wide. COLOR: Rack panel in flat grey. SHIPPING WEIGHT: Approx. 40 lbs.

321A

\$2095

AMPLITUDE PROBABILITY DISTRIBUTION: Gaussian  $\pm~1\%$ . OUTPUT SPECTRUM: Uniform ± 0.1 db from 0 to 105 cps. MAX. OUTPUT: 12 volts rms into a 1 megohm input resistance. Dynamic range of 5 to 1 peak-to-rms is provided. MAX. SPECTRAL DENSITY: Approx. 1.0 volts2/cps. D.C. UNBALANCE: Less than 50 mv. POWER: 115 v  $\pm$  10 v, 60 cycles ac. MOUNTING: Standard relay rack panel 7" high x 19" wide. COLOR: Rack panel in flat grey. SHIPPING WEIGHT: 40 lbs.

## **GENERAL PURPOSE TUBE TYPE**

**ELGENCO NOISE GENERATORS** 



 ${\bf 0UTPUT}$  SPECTRUM: Uniform to plus or minus 0.5 db from 10 to 20,000 cps.

OUTPUT LEVEL: 0 to 5 volts rms, adjustable by self contained attenuator. A dynamic range of 7 to 1 peak to rms value is provided.

SPECTRAL DENSITY: Approx. 1 mv/vcps for 5 volt rms output. AMPLITUDE PROBABILITY DISTRIBUTION: Gaussian  $\pm~1\%$ .

NOISE REGULATOR: rms output level continuously stabilized against a zener reference voltage. Output regulation ± 0.1% for input range of 2 to 1. Regulation range is greater than 4 to 1.

OVERLOAD INDICATOR: Panel overload indicator lights when input

noise level to regulator is out of regulation range.

OUTPUT METER: 0 to 5 volts rms.

MAX. LOAD: 10,000 ohms.

OUTPUT IMPEDANCE: Less than 10 ohms.

POWER REQUIREMENTS: 115/230 volts  $\pm$  10/20 volts. 50 to 1,000

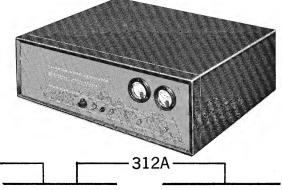
COLOR: Rack panel is flat grey.

MOUNTING: Standard relay rack panel 7" high x 19" wide and is 15" deep. Can be supplied in deluxe metal cabinet.

SHIPPING WEIGHT: Approx. 50 lbs.

0.	) ct	ps	to	2 k	(C	\$139	95
0	) cp	ps	to	5 k	C	\$139	95
0	) cp	ps	to	50	kc	\$139	95
.0	) cp	ps	to	20	0 kc	\$149	95
.0	) cr	ps	to	50	0 kc	\$164	45

## **DUAL OUTPUT** TUBE TYPE **ELGENCO NOISE GENERATORS**



Amp. Probability Dist. Output Spectrum Max. Output Max. Spectral Density DC Unbalance Output Load Power Mounting

Color Shipping Weight

Gaussian ± 1%
Uniform ± .1 db 0 to 35 cps
12 volts rms
2.5 (volts)²/cps approx.
Less than 50 mv
1 megohm minimum
115v ± 10v, 50/60 cps at 90 watts
Standard relay rack 7" high x
19" long or deluxe cabinet
Rack panel is flat grey
Approximately 45 lbs.

Gaussian  $\pm$  2% Uniform  $\pm$  .5 db, 10 cps to 20 kc 15 volts rms 7.5 (mv)<sup>2</sup>/cps approx.

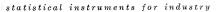
100k ohms minimum

Gaussian  $\pm$  1% Uniform  $\pm$  0.1 db 0 to 105 cps 12 volts rms 1.0 (volts) 2/cps approx. Less than 50 mv 1 megohm minimum

\$2395

311A-

\$2495





# NOISE GENERATOR PRICE LIST May 1, 1965

General Purpose Solid State Noise Generator				
Model 602A 20 cps to 5 mc (cabinet)				
Model 603A 20 cps to 5 mc (cabinet)				
Model 610A 10 cps to 5 mc (cabinet)	\$1,175.00			
Options Available For the Above Solid State Instruments				
1. Rechargeable battery Add	\$135.00			
2. Full rack width cabinet and rack mounting hardware Add	\$30.00			
Accessories Available For the Above Solid State Instruments				
1. Adaptor kit - Dual unit and rack mounting hardware	\$7.00			
2. Adaptor kit - Single unit rack mounting	\$56.00			
3. Rechargeable battery kit	\$145.00			
General Purpose Tube Type Noise Generators				
Model 331A 10 cps to 20 kc (rack mounted)	\$1,295.00			
Model 331A-23 10 cps to 2 kc (rack mounted)	\$1,395.00			
Model 331A-53 10 cps to 5 kc (rack mounted)	\$1,395.00			
Model 331A-54 10 cps to 50 kc (rack mounted)				
Model 331A-25 10 cps to 200 kc (rack mounted)				
Model 331A-55 10 cps to 500 kc (rack mounted)	\$1,645.00			
Low Frequency Tube Type Noise Generators				
Model 301A DC to 40 cps (rack mounted)	\$1,995.00			
Model 311A Dual Output DC to 40 cps, 10 cps to 20 kc (rack mounted)				
Model 312A Dual Output DC to 120 cps, 10 cps to 20 kc (rack mounted)				
Model 321A DC to 120 cps (rack mounted)				
Deluxe cabinet for tube type Noise Generators  Add	\$48.00			

#### PRICES

All prices are net with no discounts. Prices are FOB our plant and are exclusive of all taxes now in effect or that may be imposed hereafter by federal, state, or local governments. Prices given are subject to change without notice. Formal price quotations remain in effect for 30 days in the United States and Canada, 60 days in other areas.

#### SOURCE INSPECTION SURCHARGE

A surcharge of 1 per cent (\$2.50 minimum) applies on all orders requiring inspection at our plant either by one of the government services or by the customer's own inspection department or other private agency. The inspection surcharge applies on each shipment inspected.

#### TERMS

For customers in the United States and Canada, terms are net 30 days if credit has been arranges; otherwise, unless payment is received before shipment, shipment will be made COD. For customers outside the United States and Canada, terms are confirmed irrevocable letter of credit or cash in advance.

### CONDITIONS OF SALE

Determination of prices, terms, and conditions of sale and final acceptance of orders are made only at our plant.

#### ELGENCO SALES REPRESENTATIVES

### NEW ENGLAND

TECHNICAL INSTRUMENTS, INC.
BOSTON AREA - (617) 944-3930, 122 West Street, Wilmington, Massachusetts
BRIDGEPORT - (203) 368-4582, 575 Broad Street

### ATLANTIC

G. CURTIS ENGEL AND ASSOCIATES, INC.
PO Box 569, Ridgewood, New Jersey, (201) GI 4-1400
NEW YORK CITY - (212) RE 2-0001
PHILADELPHIA (215) WA 2-3270

#### SOUTHERN

MITCHELL SPEAIRS COMPANY
DALLAS - (214) TA 3-3013
FORT WORTH - (817) WA 3-4657, 4944 James Avenue
HOUSTON - (713) WA 3-7616, Houston Petroleum Center
NEW ORLEANS - Operator WX 3161

### CENTRAL

M. P. ODELL COMPANY
CLEVELAND AREA - (216) 871-8000, 26614 Center Ridge Road, Westlake, Ohio
DAYTON - (513) 298-9964, 1250 West Dorothy Lane
DETROIT - (313) 838-7324, 14027 Puritan Avenue
PITTSBURGH - (412) 371-1231, P. O. Box 10595

NORTHPORT ENGINEERING, INC. ST. PAUL - (612) 698-3841, 2027 Grand Avenue

#### WESTERN

V. T. RUPP COMPANY
ALBUQUERQUE - (505) 256-0798, 1437 San Mateo
LOS ANGELES - (213) DU 7-8224, 307 Parkman Avenue
PHOENIX - (602) 947-2071
SAN DIEGO - (714) CY 8-9835, 3445 5th Avenue
SAN FRANCISCO AREA - (415) 948-1483, 1182 Los Altos Avenue, Los Altos

SHOWALTER-JUDD, INC. SEATTLE - (206) 998-0323, 1806 South Bush Place

#### CANADA

ALLEN CRAWFORD ASSOCIATES, LTD.
65 Martin Ross Avenue, Downsview, Ontario
MONTREAL - (514) RE 9-6776
OTTAWA - (613) PA 5-1288
TORONTO - (416) 255-7771

